=> b reg FILE 'REGISTRY' ENTERED AT 11:21:06 ON 11 FEB 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 10 FEB 2004 HIGHEST RN 648858-13-3 DICTIONARY FILE UPDATES: 10 FEB 2004 HIGHEST RN 648858-13-3

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

=> d que stat 12

L1 50 SEA FILE=REGISTRY ABB=ON PLU=ON (YADAIFTNSYRKVLGQLSARKLLQDIMS RQQGESNQERGARARL)/SQEP

L2 2 SEA FILE=REGISTRY ABB=ON PLU=ON L1 AND C224H366N72O67S/MF

=> d his

L3

(FILE 'HOME' ENTERED AT 11:15:56 ON 11 FEB 2004)

FILE 'REGISTRY' ENTERED AT 11:16:00 ON 11 FEB 2004
E YADAIFTNSYRKVLGQLSARKLLQDIMSRQQGESNQERGARARL/SQEP

L1 50 S E3

L2 2 S L1 AND C224H366N72O67S/MF

FILE 'HCAPLUS' ENTERED AT 11:20:04 ON 11 FEB 2004 2 S L2

FILE 'USPATFULL, USPAT2' ENTERED AT 11:20:15 ON 11 FEB 2004 L4 1 S L2

FILE 'STNGUIDE' ENTERED AT 11:20:38 ON 11 FEB 2004

FILE 'REGISTRY' ENTERED AT 11:21:06 ON 11 FEB 2004

=> d sgide can 12 tot

L2 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2004 ACS on STN

RN 261620-11-5 REGISTRY

L-Leucinamide, N-[(3-methylphenyl)acetyl]-L-tyrosyl-L-alanyl-L-α-aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-asparaginyl-L-seryl-L-tyrosyl-L-arginyl-L-lysyl-L-valyl-L-leucylglycyl-L-glutaminyl-L-leucyl-L-seryl-L-alanyl-L-arginyl-L-lysyl-L-leucyl-L-leucyl-L-glutaminyl-L-α-aspartyl-L-isoleucyl-L-methionyl-L-seryl-L-arginyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-alamylglycyl-L-α-glutamyl-L-seryl-L-asparaginyl-L-glutaminyl-L-α-glutamyl-L-arginyl-L-alanyl-L-arginyl-L-arginyl-

(CA INDEX NAME) PROTEIN SEQUENCE FS SOL modified (modifications unspecified) NTE 1 YADAIFTNSY RKVLGOLSAR KLLQDIMSRO QGESNQERGA RARL SEO HITS AT: 1-44 **RELATED SEQUENCES AVAILABLE WITH SEQLINK** C224 H366 N72 O67 S CI MAN CA SR STN Files: CA, CAPLUS, USPATFULL LC 2 REFERENCES IN FILE CA (1907 TO DATE) 2 REFERENCES IN FILE CAPLUS (1907 TO DATE) REFERENCE 1: 137:257949 REFERENCE 2: 132:217510 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2004 ACS on STN L2. RN 261620-06-8 REGISTRY L-Leucinamide, N-[(2-methylphenyl)acetyl]-L-tyrosyl-L-alanyl-L- α -CN aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-asparaginyl-Lseryl-L-tyrosyl-L-arginyl-L-lysyl-L-valyl-L-leucylglycyl-L-glutaminyl-Lleucyl-L-seryl-L-alanyl-L-arginyl-L-lysyl-L-leucyl-L-leucyl-L-glutaminyl-L- α -aspartyl-L-isoleucyl-L-methionyl-L-seryl-L-arginyl-L-glutaminyl-L- $\verb|glutaminylglycyl-L-\alpha-glutamyl-L-seryl-L-asparaginyl-L-glutaminyl-L-|$ α-glutamyl-L-arginylglycyl-L-alanyl-L-arginyl-L-alanyl-L-arginyl-(CA INDEX NAME) (9CI) PROTEIN SEQUENCE FS SOL NTE modified (modifications unspecified) 1 YADAIFTNSY RKVLGQLSAR KLLQDIMSRQ QGESNQERGA RARL SEO 1-44 HITS AT: **RELATED SEQUENCES AVAILABLE WITH SEQLINK** C224 H366 N72 O67 S MF CT MAN SR CA CA, CAPLUS, USPATFULL LC STN Files: 2 REFERENCES IN FILE CA (1907 TO DATE) 2 REFERENCES IN FILE CAPLUS (1907 TO DATE) REFERENCE 1: 137:257949 2: 132:217510 REFERENCE => b hcap FILE 'HCAPLUS' ENTERED AT 11:22:15 ON 11 FEB 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is

held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 11 Feb 2004 VOL 140 ISS 7 FILE LAST UPDATED: 10 Feb 2004 (20040210/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> d all tot 13 DISPLAY FOR HEAPTUS

- L3 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN
- AN 2002:748783 HCAPLUS
- DN 137:257949
- ED Entered STN: 03 Oct 2002
- TI Growth hormone releasing factor analogs with increased biological potency and their therapeutic uses
- IN Gravel, Denis; Habi, Abdelkrim; Brazeau, Paul
- PA Theratechnologies Inc., Can.
- SO U.S., 32 pp., Cont.-in-part of U. S. 6,020,311. CODEN: USXXAM
- DT Patent
- LA English
- IC ICM A61K038-25 ICS C07K014-60
- NCL 514012000
- CC 2-2 (Mammalian Hormones)

Section cross-reference(s): 34

FAN.CNT 6

L TIM.	PATENT NO.			KIND DATE					APPLICATION NO.				٥.	DATE					
ΡI	PI US 6458764						20021001			U	S 19:	99-3	8948	6	1999	0903			
		5861379									S 19	96-7	0211	4	1996	0823			
							1999	0817		US 1996-702113					19960823				
															19980908				
		2342070													19990907				
										WO 1999-CA816					19990907				
		W .:	ΑE,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CR,	CU,	
								ES,											
								ΚP,											
								NO,											
			SL,	ТJ,	TM,	TR,	TT,	UA,	ŪĠ,	US,	UZ,	VN,	YU,	ZA,	ZW,	AM,	ΑZ,	BY,	
					•		ТJ,						•						
		RW:	GH,																
								ΙE,						SE,	BF,	ВJ,	CF,	CG,	
								ML,											
		755852 9913515 1109909		B2 A A2		20021219 20010605 20010627			AU 1999-55007 19990907										
									·										
									BR 1999-13515 19990907										
	EΡ									EP 1999-941349 19990907 GB, GR, IT, LI, LU, NL, SE, MC,									
		R:							FR,	GB,	GR,	IT,	ьI,	ъU,	NЬ,	SE,	MC,	PT,	
			ΙE,	SI,	LT,	LV,	FI,	RO											

```
JP 2000-568979
                                                            19990907
                      T2
                            20020806
    JP 2002524472
PRAI US 1995-453067
                            19950526
                      B2
                      B2
                            19960522
    US 1996-651645
                      A2
                            19960823
    US 1996-702113
                      A2
                            19960823
    US 1996-702114
    US 1998-148982
                      A2
                            19980908
                            19990903
    US 1999-389486
                      Α
    WO 1999-CA816
                      W
                            19990907
    The present invention relates to chimeric fatty body-GRF analogs with
     increased biol. potency, their application as anabolic agents and in the
     diagnosis and treatment of growth hormone deficiencies. The chimeric
     fatty body-GRF analogs include an hydrophobic moiety (tail), and can be
    prepared, either by anchoring at least one hydrophobic tail to the GRF, in
     the chemical synthesis of GRF. The GRF analogs of the present invention are
    biodegradable, non-immunogenic and exhibit an improved anabolic potency
     with a reduced dosage and prolonged activity.
    growth hormone releasing factor analog prepn therapeutic use
ST
IT
    Proteins
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (anabolism, improvement of; preparation of growth hormone releasing factor
        analogs with increased biol. potency and their therapeutic uses)
    Bone, disease
TT
        (fracture, healing of; preparation of growth hormone releasing factor
        analogs with increased biol. potency and their therapeutic uses)
IT
    Diagnosis
        (of growth hormone deficiencies; preparation of growth hormone releasing
        factor analogs with increased biol. potency and their therapeutic uses)
    Dwarfism
TΥ
        (pituitary, treatment; preparation of growth hormone releasing factor
        analogs with increased biol. potency and their therapeutic uses)
     Antiobesity agents
TТ
     Human
     Wound healing
     Wound healing promoters
        (preparation of growth hormone releasing factor analogs with increased biol.
        potency and their therapeutic uses)
     Growth disorders, animal
IT
        (retarded, treatment; preparation of growth hormone releasing factor analogs
        with increased biol. potency and their therapeutic uses)
IT
     Pituitary gland, anterior lobe
        (somatotroph, overall upgrading of somatotroph function; preparation of
        growth hormone releasing factor analogs with increased biol. potency
        and their therapeutic uses)
ΙT
     Osteoporosis
        (therapeutic agents; preparation of growth hormone releasing factor analogs
        with increased biol. potency and their therapeutic uses)
IT
     Obesity
        (treatment; preparation of growth hormone releasing factor analogs with
        increased biol. potency and their therapeutic uses)
     9002-72-6, Somatotropin
IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (deficiency, treatment; preparation of growth hormone releasing factor
        analogs with increased biol. potency and their therapeutic uses)
     9034-39-3DP, Growth hormone releasing factor, analogs
IT
     RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (preparation of growth hormone releasing factor analogs with increased biol.
```

90830-28-7DP, 1-29-Somatoliberin (human pancreatic

potency and their therapeutic uses)

90599-39-6DP, analogs

IT

```
185744-57-4P
                                                                          261619-10-7P,
islet), analogs
                           185744-56-3P
L-Leucinamide, N-[[(1R,2S)-2-ethylcyclopropyl]acetyl]-L-tyrosyl-L-alanyl-L-
α-aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-
asparaginyl-L-seryl-L-tyrosyl-L-arginyl-L-lysyl-L-valyl-L-leucylglycyl-L-
qlutaminyl-L-leucyl-L-seryl-L-alanyl-L-arginyl-L-lysyl-L-leucyl-L-leucyl-L-
qlutaminyl-L-α-aspartyl-L-isoleucyl-L-methionyl-L-seryl-L-arginyl-L-
qlutaminyl-L-qlutaminylqlycyl-L-α-qlutamyl-L-seryl-L-asparaginyl-L-
qlutaminyl-L-α-qlutamyl-L-arginylqlycyl-L-alanyl-L-arginyl-L-alanyl-
                    261619-56-1P, L-Leucinamide, N-[(cis-2-
ethylcyclopropyl)acetyl]-L-tyrosyl-L-alanyl-L-α-aspartyl-L-alanyl-L-
isoleucyl-L-phenylalanyl-L-threonyl-L-asparaginyl-L-seryl-L-tyrosyl-L-
arginyl-L-lysyl-L-valyl-L-leucylglycyl-L-glutaminyl-L-leucyl-L-seryl-L-
alanyl-L-arginyl-L-lysyl-L-leucyl-L-leucyl-L-glutaminyl-L-α-aspartyl-
L-isoleucyl-L-methionyl-L-seryl-L-arginyl-L-glutaminyl-L-glutaminylglycyl-
L-\alpha-glutamyl-L-seryl-L-asparaginyl-L-glutaminyl-L-\alpha-glutamyl-L-
arginylglycyl-L-alanyl-L-arginyl-L-alanyl-L-arginyl-
                                                                                   261620-00-2P,
L-Leucinamide, N-[[(1R,2R)-2-ethylcyclopropyl]acetyl]-L-tyrosyl-L-alanyl-L-
\alpha-aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-
asparaginyl-L-seryl-L-tyrosyl-L-arginyl-L-lysyl-L-valyl-L-leucylglycyl-L-
glutaminyl-L-leucyl-L-seryl-L-alanyl-L-arginyl-L-lysyl-L-leucyl-L-leucyl-L-
\verb|glutaminyl-L-\alpha-aspartyl-L-isoleucyl-L-methionyl-L-seryl-L-arginyl-L-|
glutaminyl-L-glutaminylglycyl-L-α-glutamyl-L-seryl-L-asparaginyl-L-
glutaminyl-L-α-glutamyl-L-arginylglycyl-L-alanyl-L-arginyl-L-alanyl-
L-arginyl-
                   261620-02-4P, L-Leucinamide, N-[[(3R)-3-
methylcyclopentyl]acetyl]-L-tyrosyl-L-alanyl-L-α-aspartyl-L-alanyl-L-
isoleucyl-L-phenylalanyl-L-threonyl-L-asparaginyl-L-seryl-L-tyrosyl-L-
arginyl-L-lysyl-L-valyl-L-leucylglycyl-L-glutaminyl-L-leucyl-L-seryl-L-
alanyl-L-arginyl-L-lysyl-L-leucyl-L-leucyl-L-glutaminyl-L-α-aspartyl-
L-isoleucyl-L-methionyl-L-seryl-L-arginyl-L-glutaminyl-L-glutaminylglycyl-
L-\alpha-glutamyl-L-seryl-L-asparaginyl-L-glutaminyl-L-\alpha-glutamyl-L-
arginylglycyl-L-alanyl-L-arginyl-L-alanyl-L-arginyl-
                                                                                    261620-04-6P,
L-Leucinamide, N-(bicyclo[4.1.0]hept-1-ylacetyl)-L-tyrosyl-L-alanyl-L-
α-aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-
asparaginyl-L-seryl-L-tyrosyl-L-arginyl-L-lysyl-L-valyl-L-leucylglycyl-L-
glutaminyl-L-leucyl-L-seryl-L-alanyl-L-arginyl-L-lysyl-L-leucyl-L-leucyl-L-
qlutaminyl-L-α-aspartyl-L-isoleucyl-L-methionyl-L-seryl-L-arginyl-L-
glutaminyl-L-glutaminylglycyl-L-α-glutamyl-L-seryl-L-asparaginyl-L-
\verb|glutaminyl-L-\alpha-glutamyl-L-arginyl| \verb|glycyl-L-alanyl-L-arginyl-L-alanyl-| \\
L-arginyl- 261620-06-8P, L-Leucinamide, N-[(2-
methylphenyl)\,acetyl]\,\hbox{-L-tyrosyl-L-alanyl-L-}\alpha\hbox{-aspartyl-L-alanyl-L-}
isoleucyl-L-phenylalanyl-L-threonyl-L-asparaginyl-L-seryl-L-tyrosyl-L-
arginyl-L-lysyl-L-valyl-L-leucylglycyl-L-glutaminyl-L-leucyl-L-seryl-L-
alanyl-L-arginyl-L-lysyl-L-leucyl-L-leucyl-L-glutaminyl-L-\alpha-aspartyl-
L-isoleucyl-L-methionyl-L-seryl-L-arginyl-L-glutaminyl-L-glutaminylglycyl-
\texttt{L-}\alpha\text{-glutamyl-L-seryl-L-asparaginyl-L-glutaminyl-L-}\alpha\text{-glutamyl-L-}
arginylglycyl-L-alanyl-L-arginyl-L-alanyl-L-arginyl- 261620-11-5P***,
L-Leucinamide, N-[(3-methylphenyl)acetyl]-L-tyrosyl-L-alanyl-L-\alpha-
aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-asparaginyl-L-
seryl-L-tyrosyl-L-arginyl-L-lysyl-L-valyl-L-leucylglycyl-L-glutaminyl-L-
leucyl-L-seryl-L-alanyl-L-arginyl-L-lysyl-L-leucyl-L-leucyl-L-glutaminyl-L-
\alpha-aspartyl-L-isoleucyl-L-methionyl-L-seryl-L-arginyl-L-glutaminyl-L-
\verb|glutaminylglycyl-L-\alpha-glutamyl-L-seryl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminyl-L-glutaminy
\alpha-glutamyl-L-arginylglycyl-L-alanyl-L-arginyl-L-alanyl-L-arginyl-
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
     (preparation of growth hormone releasing factor analogs with increased biol.
    potency and their therapeutic uses)
75-11-6, Diiodomethane 108-59-8, Dimethyl malonate
                                                                                     108-94-1,
                                         111-42-2, Diethanolamine, reactions
                                                                                                    121-43-7,
Cyclohexanone, reactions
```

IT

```
124-40-3, Dimethylamine, reactions
                                                           593-71-5,
     Trimethylborate
                         608-68-4, Dimethyl tartrate 693-03-8, Butyl
     Chloroiodomethane
                                                              928-96-1,
     magnesium bromide
                         867-13-0, Triethylphosphonoacetate
                                                       6672-30-6,
                        928-97-2, trans-3-Hexen-1-ol
     cis-3-Hexen-1-ol
     Cyclopentanone, 3-methyl-, (3R) - 13368-65-5, Cyclohexanone, 3-methyl-,
     (3R) -
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of growth hormone releasing factor analogs with increased biol.
        potency and their therapeutic uses)
IT
     1552-92-7P, Acetic acid, cyclohexylidene-, ethyl ester
                                                              4426-47-5P,
     Butylboronic acid
                         4709-59-5P, 1-Cyclohexene-1-acetic acid, ethyl ester
     24965-94-4P, Cyclohexanol, 3-methyl-, (1R,3R)- 63126-52-3P,
     Butanediamide, 2,3-dihydroxy-N,N,N',N'-tetramethyl-, [S-(R*,R*)]-
     66529-34-8P, Cyclohexanol, 3-methyl-, methanesulfonate, (1R,3R)-
     87626-08-2P, Cyclopropaneacetic acid, 2-ethyl-, (1R,2R)-rel-
     131469-79-9P, Bicyclo[4.1.0]heptane-1-acetic acid 161344-85-0P,
     1,3,2-Dioxaborolane-4,5-dicarboxamide, 2-butyl-N,N,N',N'-tetramethyl-,
     (4R,5R) - 173327-83-8P, Cyclopropaneethanol, 2-ethyl-, (1R,2R)-
     252663-45-9P, Boron, butyl[[2,2'-(imino-kN)bis[ethanolato-
     \kappa0]](2-)]-, (T-4)- 260983-17-3P, Cyclopropaneethanol, 2-ethyl-
     260983-18-4P, Cyclopropaneethanol, 2-ethyl-, (1R,2S)-
                                                            260983-19-5P,
     Cyclopropaneacetic acid, 2-ethyl-, (1R,2R)- 260983-20-8P, Acetic acid,
     [(3R)-3-methylcyclopentylidene]-, ethyl ester
                                                     260983-21-9P,
     Cyclopentaneacetic acid, 3-methyl-, ethyl ester, (3R)-
                                                              260983-22-0P,
                                                 260983-23-1P,
     Cyclopentaneacetic acid, 3-methyl-, (3R)-
     Bicyclo[4.1.0]heptane-1-acetic acid, ethyl ester
                                                        260983-24-2P,
     Propanedioic acid, [(1S,3R)-3-methylcyclohexyl]-, dimethyl ester
     260983-25-3P, Propanedioic acid, [(1S,3R)-3-methylcyclohexyl]-
     260983-26-4P, Cyclohexaneacetic acid, 3-methyl-, (1S,3R)- 261354-51-2P,
     Cyclopropaneacetic acid, 2-ethyl-, (1R,2S)-
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation of growth hormone releasing factor analogs with increased biol.
        potency and their therapeutic uses)
              THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT
RE
(1) Brazeau; US 6020311 A 2000 HCAPLUS
(2) Ibea; US 5861379 A 1999 HCAPLUS
(3) Ibea; US 5939386 A 1999 HCAPLUS
     ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN
L3
AN
     2000:175935 HCAPLUS
DN
     132:217510
ED
     Entered STN: 17 Mar 2000
     Growth hormone releasing factor analogs with increased biological potency
TI
     and their therapeutic uses
IN
     Gravel, Denis; Habi, Abdelkrim; Brazeau, Paul
PA
     Theratechnologies Inc., Can.
     PCT Int. Appl., 81 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
IC
     ICM C12N015-16
     ICS C07K014-60; A61K038-25; G01N033-68
     2-10 (Mammalian Hormones)
CC
     Section cross-reference(s): 1
FAN.CNT 6
                                           APPLICATION NO.
                                                           DATE
     PATENT NO.
                      KIND DATE
                                           ______
                      _ - - -
                            20000316
                                           WO 1999-CA816
                                                            19990907
                       A2
PΙ
     WO 2000014236
```

```
AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
             CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
             IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
             MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
             SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
             ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
             CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                           US 1998-148982
                                                             19980908
    US 6020311
                       Α
                            20000201
                                           US 1999-389486
    US 6458764
                       В1
                            20021001
                                                             19990903
                                           CA 1999-2342070
                                                            19990907
    CA 2342070
                       AA
                            20000316
                                           AU 1999-55007
                                                             19990907
    AU 9955007
                       A1
                            20000327
                       В2
                            20021219
    AU 755852
                                                             19990907
                       Α
                            20010605
                                           BR 1999-13515
    BR 9913515
                                           EP 1999-941349
                                                             1999090.7
    EP 1109909
                       A2
                            20010627
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
                                           JP 2000-568979
                                                             19990907
                       Т2
                            20020806
     JP 2002524472
                            19980908
PRAI US 1998-148982
                       Α
                            19990903
    US 1999-389486
                       Α
    US 1995-453067
                       В2
                            19950526
    US 1996-651645
                       B2
                            19960522
    US 1996-702113
                       A2
                            19960823
    US 1996-702114
                       A2
                            19960823
                            19990907
    WO 1999-CA816
                       W
    MARPAT 132:217510
OS
     The present invention relates to chimeric fatty body-GRF analogs with
AB
     increased biol. potency, their application as anabolic agents and in the
     diagnosis and treatment of growth hormone deficiencies. The chimeric
     fatty body-GRF analogs include a hydrophobic moiety (tail), and can be
     prepared, either by anchoring at least one hydrophobic tail to the GRF, in
     the chemical synthesis of GRF. The GRF analogs of the present invention are
    biodegradable, non-immunogenic and exhibit an improved anabolic potency
    with a reduced dosage and prolonged activity. Thus, a series of 7 human
     GRF analogs with a variety of cycloalkyl-or phenyl-containing acyl groups
     attached to the N-terminus were synthesized. Relative to the human GRF
     control, these analogs significantly increased insulin-like growth factor
     1 (IGF-1) levels in pig serum on day 6. Increased serum IGF-1 levels were
     observed on day 3 for two of the analogs.
     growth hormone releasing factor analog
ST
     Proteins, general, biological studies
TT
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (anabolism; growth hormone releasing factor analogs with increased
        biol. potency and their therapeutic uses)
IT
     Bone, disease
        (fracture, healing of; growth hormone releasing factor analogs with
        increased biol. potency and their therapeutic uses)
IT
     Antiobesity agents
     Wound healing
        (growth hormone releasing factor analogs with increased biol. potency
        and their therapeutic uses)
IT
     Diagnosis
        (mol.; growth hormone releasing factor analogs with increased biol.
        potency and their therapeutic uses)
IT
     Dwarfism
        (pituitary, retardation of; growth hormone releasing factor analogs
        with increased biol. potency and their therapeutic uses)
```

Growth, animal

IT

```
(retardation of; growth hormone releasing factor analogs with increased
        biol. potency and their therapeutic uses)
     9034-39-3DP, Growth hormone releasing factor, analogs
                                                              185744-56-3P
IT
                                   261619-56-1P 261620-00-2P
                                                                  261620-02-4P
     185744-57-4P
                    261619-10-7P
     261620-04-6P 261620-06-8P 261620-11-5P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (growth hormone releasing factor analogs with increased biol. potency
        and their therapeutic uses)
IT
     9002-72-6, Growth hormone
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (growth hormone releasing factor analogs with increased biol. potency
        and their therapeutic uses)
Τ'n
     75-11-6, Diiodomethane
                              108-59-8, Dimethyl malonate
                                                             108-94-1,
                                111-42-2, Diethanolamine, reactions
     Cyclohexanone, reactions
     Trimethylborate
                       124-40-3, Dimethylamine, reactions
                         608-68-4, Dimethyl tartrate, reactions
                                                                   693-03-8,
     Chloroiodomethane
                              867-13-0, Triethylphosphonoacetate
     Butyl magnesium bromide
                                                       6672-30-6
     cis-3-Hexen-1-ol
                        928-97-2, trans-3-Hexen-1-ol
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (growth hormone releasing factor analogs with increased biol. potency
        and their therapeutic uses)
                                                   4709-59-5P
IT
     1552-92-7P
                  4426-47-5P, Butylboronic acid
                                                                24965-94-4P
     63126-52-3P
                   66529-34-8P
                                 87626-08-2P
                                               131469-79-9P,
     Bicyclo[4.1.0]heptane-1-acetic acid
                                           161344-85-0P
                                                           173327-83-8P
     252663-45-9P
                    260983-17-3P
                                   260983-18-4P
                                                   260983-19-5P
                                                                  260983-20-8P ·
     260983-21-9P
                    260983-22-0P
                                   260983-23-1P
                                                  260983-24-2P
                                                                  260983-25-3P
     260983-26-4P
                    261354-51-2P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (growth hormone releasing factor analogs with increased biol. potency
        and their therapeutic uses)
IT
     90599-39-6
                  90830-28-7, 1-29-Somatoliberin (human pancreatic islet)
     RL: PRP (Properties)
        (unclaimed protein sequence; growth hormone releasing factor analogs
        with increased biol. potency and their therapeutic uses)
=> b uspatall
FILE 'USPATFULL' ENTERED AT 11:22:32 ON 11 FEB 2004
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)
FILE 'USPAT2' ENTERED AT 11:22:32 ON 11 FEB 2004
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)
                        DISPLAY FOR USPATALL
=> d bib abs hitrn 14
     ANSWER 1 OF 1 USPATFULL on STN
L4
AN
       2002:254337 USPATFULL
ΤI
       GRF analogs with increased biological potency
TN
       Gravel, Denis, St-Lambert, CANADA
       Habi, Abdelkrim, Anjou, CANADA
       Brazeau, Paul, Montreal, CANADA
       Theratechnologies Inc., Montreal, CANADA (non-U.S. corporation)
PΔ
PΙ
       US 6458764
                               20021001
                          В1
                               19990903 (9)
      US 1999-389486
ΑI
       Continuation-in-part of Ser. No. US 1998-148982, filed on 8 Sep 1998,
RLT
      now patented, Pat. No. US 6020311 Continuation-in-part of Ser. No. US
```

1996-702113, filed on 23 Aug 1996, now patented, Pat. No. US 5939386, issued on 17 Aug 1999 Continuation-in-part of Ser. No. US 1996-702114, filed on 23 Aug 1996, now patented, Pat. No. US 5861379, issued on 19 Jan 1999 Continuation-in-part of Ser. No. US 1996-651645, filed on 22 May 1996, now abandoned Continuation-in-part of Ser. No. US 1995-453067, filed on 26 May 1995, now abandoned

DT Utility FS GRANTED

EXNAM Primary Examiner: Low, Christopher S. F.; Assistant Examiner: Mohamed, Abdel A.

LREP Crowell & Moring LLP CLMN Number of Claims: 10 ECL Exemplary Claim: 1

DRWN 10 Drawing Figure(s); 10 Drawing Page(s)

LN.CNT 1550

=>

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention relates to chimeric fatty body-GRF analogs with increased biological potency, their application as anabolic agents and in the diagnosis and treatment of growth hormone deficiencies. The chimeric fatty body-GRF analogs include an hydrophobic moiety (tail), and can be prepared, either by anchoring at least one hydrophobic tail to the GRF, in the chemical synthesis of GRF. The GRF analogs of the present invention are biodegradable, non-immunogenic and exhibit an improved anabolic potency with a reduced dosage and prolonged activity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

261620-06-8P, L-Leucinamide, N-[(2-methylphenyl)acetyl]-L-tyrosyl-L-alanyl-L-α-aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-Lthreonyl-L-asparaginyl-L-seryl-L-tyrosyl-L-arginyl-L-lysyl-L-valyl-Lleucylglycyl-L-glutaminyl-L-leucyl-L-seryl-L-alanyl-L-arginyl-L-lysyl-L- $\texttt{leucyl-L-leucyl-L-glutaminyl-L-} \alpha - \texttt{aspartyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-isoleucyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L-methionyl-L$ $seryl-L-arginyl-L-glutaminyl-L-glutaminylglycyl-L-\alpha-glutamyl-L-glutaminylglycyl-L-\alpha-glutamyl-L-glutaminylglycyl-L-\alpha-glutaminylglycyl-L-\alpha-glutaminylglycyl-L-\alpha-glutaminylglycyl-L-\alpha-glutaminylglycyl-L-\alpha-glutaminylglycyl-L-\alpha-glutaminylglycyl-L-\alpha-glutaminylglycyl-L-\alpha-glutaminylglycyl-L-\alpha-glutaminylglycyl-L-\alpha-glutaminylglycyl-L-\alpha-glutaminylglycyl-L-\alpha-glutaminylglycyl-L-\alpha-glutaminylglycyl-L-\alpha-glutaminylglycyl-L-\alpha-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl-L-a-glutaminylglycyl$ seryl-L-asparaginyl-L-glutaminyl-L-α-glutamyl-L-arginylglycyl-Lalanyl-L-arginyl-L-alanyl-L-arginyl- 261620-11-5P, $L-Leucinamide, \ N-\hbox{\tt [(3-methylphenyl)acetyl]-L-tyrosyl-L-alanyl-L-} \alpha- \\$ aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-asparaginyl-Lseryl-L-tyrosyl-L-arginyl-L-lysyl-L-valyl-L-leucylglycyl-L-glutaminyl-Lleucyl-L-seryl-L-alanyl-L-arginyl-L-lysyl-L-leucyl-L-leucyl-L-glutaminyl- $L-\alpha$ -aspartyl-L-isoleucyl-L-methionyl-L-seryl-L-arginyl-L-glutaminyl-L-glutaminylglycyl-L- α -glutamyl-L-seryl-L-asparaginyl-L-glutaminyl-L-α-glutamyl-L-arginylglycyl-L-alanyl-L-arginyl-L-alanyl-L-arginyl-(preparation of growth hormone releasing factor analogs with increased biol. potency and their therapeutic uses)

=> b home FILE 'HOME' ENTERED AT 11:23:34 ON 11 FEB 2004